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The Environmental Forum

Hosted by the
Environmental Services Office

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Environmental Services Office

- The Environmental Services Office supports all NASA Ames employees, tenants, and any other activities occurring on the Center.
- Code QE located in N-218
- Code Q Deputy Director, Sandy Olliges, 650-604-3355
- Internal Website for NASA Ames employees is http://q.arc.nasa.gov/qe
- External Website for the general public is www.environment.arc.nasa.gov

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About The Environmental Forum

- A monthly presentation hosted by code QE
- Presentation topics chosen that are most relevant to NASA Ames employees, and are related to Ames activity in the environment, health, and/or safety fields
- Presentations are given by NASA Ames employees who are experts in the topic field.
- Environmental Forum always held the first Thursday of each month from 8:30-9:30 a.m. in building 221, training room 155
- To be added to the Forum announcement mailing list, or to suggest future Forum topics, please contact Stacy St. Louis at 4-6810 or sstlouis@mail.arc.nasa.gov.

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Hangar 1 Update
July 7, 2005

Sandy Olliges

Eric Watkins

Tom Anderson

Hangar 1 Background

- 1997 - Aroclor 1268 (an uncommon polychlorinated biphenyl or PCB) first identified in NASA Ames Stormwater basin
- 2002 - Aroclor 1268 detected in Hangar 1 siding samples up to 188,000 ppm and 540 ppm in Hangar 1 perimeter trench
- October 2003 - Time Critical Removal Action (TCRA) completed by Navy by coating of hangar with asphalt emulsion
  - The TCRA was an interim action by Navy that had an expected service of approximately 3 years, or until late 2006.

Hangar 1 Current Status

- Aroclor 1268 continues to be detected in Hangar 1 perimeter trench sediment and runoff
- Navy proposes to take an action called a Non Time Critical Removal Action (NTCRA) in order to permanently remove the source of the PCBs

Engineering Evaluation/ Cost Analysis

- Performing a NTCRA requires the preparation of an Engineering Evaluation/Cost Analysis (EE/CA)
- The EE/CA will describe the source of contamination, present the remedial action objectives, and propose source control remedial alternatives.
- The EE/CA also includes a comparative analysis to identify the recommended alternative.
- The EE/CA is similar to NEPA or an Effects Determination.
- An Action Memo will be produced, which is similar to an MOA.

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Hangar 1 Meetings

- July 14 Restoration Advisory Board (RAB)
  Mountain View City Hall
- August 17 Stakeholders Meeting
  Building 943, NASA Ames
- August 18 Open House
  Building 943, NASA Ames
- September 14 Public Meeting
  Building 943, NASA Ames

Hangar 1 Alternatives

Alternative 1 – Encapsulation

A. Enclose entire hangar inside another structure
B. Cover exterior with rubberized material
C. Coat exterior contaminated surfaces with asphalt-emulsion material (3-5 year lifespan)
D. Coat exterior contaminated surfaces with a durable material (20-30 year lifespan)
E. Cover exterior with new, similar-looking siding

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Hangar 1 Alternatives

Alternative 2 - Removal of Contaminants

A. Sandblast exterior contaminated surfaces
B. Neutralize exterior PCBs by applying bimetallic emulsion
C. Remove exterior PCBs by chemical stripping
D. Remove siding (without replacement) and clean interior contaminated surfaces
E. Remove siding (with replacement by third party) and clean interior contaminated surfaces

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Hangar 1 Alternatives

Alternative 3 - Collect Storm Water Runoff from Exterior and Treat

A. Stormwater runoff collected and treated onsite

B. Stormwater runoff collected and disposed/treated offsite

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Hangar 1 Alternatives

Alternative 4 - Hangar Demolition and Offsite Disposal

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Historic Documentation

Secretary of Interior Standards for Documentation and Treatment of Historic Properties

Historic Documentation

The three sets of documentation standards (i.e, the Standards for Historical Documentation, Standards for Architectural and Engineering Documentation, and Standards for Archeological Documentation) describe the techniques of several disciplines to treat historic values.

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Historic Documentation

Historic documentation provides important information related to the significance of a property for use by historians, researchers, preservationists, architects and historical archeologists. Historical documentation is also a treatment that can be used in conjunction with other treatment activities as a final treatment to preserve information in cases of threatened property destruction.

Historic Documentation

Historic documentation is undertaken to make a detailed record of the significance of a property for research and interpretive purposes and for conservation of information in cases of threatened property destruction. Documentation must have defined objectives so that proposed work may be assessed to determine whether the resulting documentation will meet needs identified in the planning process.

Historic Documentation

- Historical Documentation Objectives
  - Documentation in a detailed report or other written document of the historical context, and significance of property
  - Historical research to create documentation using archival materials, oral history, ethnologists histories
  - Prior research contained in secondary sources

Historic Documentation

- Research Design

Historical documentation is guided by a statement of objectives, research design or task directive prepared before the research is performed. The research design is a useful statement of how proposed work will enhance existing archival data and permits comparison of the proposed work with the results. The research design should include; evaluated significance of the property to be investigated, historical, architectural or cultural, or archeological issues relevant to the evaluated significance of the property, previous research, types and sources to be investigated, expected results/findings, relationship of the proposed historical documentation to other proposed treatment activities.

Historic Documentation

- Methods

  The variety of available written and graphic materials, and the number of individuals that can serve as sources, include but not are not limited to:

1. Personal records
2. Deed title books
3. Newspapers
4. Plats, maps
5. Atlases
6. Photographs
7. Vital records
8. Census
9. Historical narratives
10. Personal interviews
11. Secondary sources
12. Local archival

Historic Documentation

- Architectural and Engineering Documentation

These guidelines link the standards for Architectural and Engineering Documentation with more specific guidance and technical information. The Historic American Building Survey (HABS) and Historic American Engineering Record (HAER) are the national historical and engineering documentation programs of the National Park Service that promote documentation incorporated into the HABS/HAER collection in the Library of Congress. The goal of the collections is to provide the public with comprehensive documentation of buildings, sites, structures, and objects significant in American History.

Historic Documentation

Documentation should include, but not be limited to:

1. Level I - Full set of measured drawings (original engineering preferred) depicting existing or historic conditions

   Level II - reproduced drawings

   Level III - drawings/sketch plans

   Level IV - HABS/HAER inventory card; relevant written material /academic/magazines profession journals/ trade publications/ press releases

Historic Documentation

2. Written data with relevant historic context
3. Measured drawings of historic building, including site structure and any objects that portrays or depicts the historic value or significance
4. Field records
5. Video tape or Digital Video Disc with audio narration (oral history) depicting the interior and exterior of building, its history, significant contributions, historic context, engineering significance, and context within surrounding community
6. Graphic/model representations

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